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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,535	09/24/2003	Cliff Evans	60.1532	4628

7590

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Intellectual Property Law Department  
Schlumberger-Doll Research  
36 Old Quarry Rd.  
Ridgefield, CT 06877

EXAMINER
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ESTRADA, ANGEL R

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 07/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/669,535

Applicant(s)

EVANS ET AL.

Examiner

Angel R. Estrada

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) 19-41 and 46 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-10, 13, 15, 16, 18 and 42-44 is/are rejected.
- 7) ☒ Claim(s) 6, 7, 11, 12, 14, 17 and 45 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4/28/04.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Group I (claims 1-18 and 42-45) is acknowledged.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 9, 10, 13, 15, 16 and 42-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldfarb (US 4,654,472).

Regarding claim 1, Goldfarb discloses an electrical feedthru apparatus (see figure 1c) comprising: a core (14) comprising an electrical insulator (column 3 lines 49-53), the core (14) having an external surface (see figure 1c); an electrically conductive transmission line (18) disposed across a portion of the external surface (see figure 1c); and an insulating mold (12) disposed over the electrically conductive transmission line (18) and the external surface (see figures 1a-1c).

Regarding claim 2, Goldfarb discloses the electrical feedthru apparatus (see figure 1c) further comprising a channel (17) formed in the external surface (see figure 1c), wherein the electrically conductive transmission line (18) is disposed in the channel and bonded thereto (column 3 lines 62-65)

Regarding claim 3, Goldfarb discloses the electrical feedthru apparatus (see figure 1c) wherein the core (14) comprises an axial centerline, and wherein at least a portion of the electrically conductive transmission line (18) is not parallel to the axial centerline (see figure 1c).

Regarding claim 4, Goldfarb discloses an electrical feedthru apparatus (see figure 1c), wherein the core is generally cylindrical (see figure 1c or column 3 lines 55-57).

Regarding claim 9, Goldfarb discloses the electrical feedthru apparatus (see figure 1c), wherein the core (14) comprises injection molded plastic (column 3 lines 51-55).

Regarding claims 10, Goldfarb discloses the electrical feedthru apparatus (see figure 1c) further comprising a microchip (21) adhered to the core (14, see figure 1a or 1d), wherein the microchip (21) is wire-bonded (23) to the electrically conductive transmission line (see figures 1a or 1c).

Regarding claim 13, Goldfarb discloses the electrical feedthru apparatus (see figure 1c), further comprising a plurality of electrically conductive transmission lines (18) spaced around the external surface (see figures 1a and 1c).

Regarding claim 15, Goldfarb discloses the electrical feedthru apparatus (see figure 1c), wherein the electrically conductive transmission line (18) is connected to a standard electrical connector (see figure 1a).

Regarding claim 16, Goldfarb discloses the electrical feedthru apparatus (see figure 1c), wherein the electrically conductive transmission line (18) is substantially flush with the external surface (see figure 1a-1c or column 3 lines 62-65).

Regarding claim 42, Goldfarb discloses an electrical feedthru (see figure 1c) comprising: a disk (14, column 3 lines 55-57) comprising an electrical insulator (column 3 lines 51-55), the disk (14) having an external surface (see figure 1c); and a plurality of electrically conductive transmission lines (18) disposed across a portion of the external surface (see figure 1c).

Regarding claim 43, Goldfarb discloses the electrical feedthru (see figure 1c) further comprising a plurality of channels (17) disposed in the external surface (see figure 11a-1c), wherein each of the plurality of electrically conductive transmission lines (18) is disposed in one of the plurality of channels and is bonded thereto (see figures 1a-1c, or column 3 lines 62-65).

Regarding claim 44, Goldfarb discloses the electrical feedthru apparatus (see figure 1c), wherein the disk (14, see column 3 lines 55-57) comprises a central axis and a tapered first end (column 3 lines 55-57, any suitable geometric shape); and wherein the plurality of electrically conductive transmission lines (18) is not parallel to the central axis (see figure 1c).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldfarb (US 4,654,472).

Regarding claim 5, Goldfarb discloses the claimed invention except for the mold being shaped to fit into a standard swage lock. It would have been an obvious matter of design choice to make the mold with a shape to fit into a standard swage lock, since such a modification would have involved a mere change in the shape of a component. Where the instant specification and evidence of record fail to attribute any significance (novel or unexpected results) to a particular shape, a change of shape is generally recognized as being within the level of ordinary skill in the art. *Span-Deck Inc. V. FabCon, Inc.*, 215 USPQ 835.

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4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldfarb (US 4,654,472 in view of Bickford et al (US 6,506,083, hereinafter Bickford)).

Regarding claim 8, Goldfarb discloses that the mold (12) is made of plastic (column 3 lines 51-53); but does not specify that the plastic is PEEK (polyetheretherketone). Bickford teaches an electrical feedthrough (2) having a mold (14) being made out of PEEK (column 2 lines 45-51). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make Goldfarb's mold out of PEEK as taught by Bickford, since PEEK is well known in the art as an excellent thermoplastic material that is hard and stiff with good thermal and mechanical properties.

5. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldfarb (US 4,654,472 in view of Tower (US 6,111,198)).

Regarding claim 18, Goldfarb discloses that the transmission line (18) conducts electricity, so the line is made of a certain kind of metal; but lacks the metal being copper. Tower teaches an electrical feedthrough (20) having a transmission line (130,135,140) made of copper (column 4 lines 63-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make Goldfarb's transmission lines out of copper as taught by Tower, since copper is well known in the electrical art for its superior conductivity.

***Allowable Subject Matter***

6. Claims 6, 7, 11-12, 14, 17 and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The primary reasons for the indication of the allowability of claims 6, 7, 11-12, 14, 17 and 45 are:

Regarding claims 6 and 7, the prior art does not teach or fairly suggest in combination with the other claimed limitations the mold comprises a wedge.

Regarding claims 11 and 12, the prior art does not teach or fairly suggest in combination with the other claimed limitation the microchip having a sensor chip.

Regarding claim 14, the prior art does not teach or suggest in combination with the other claimed limitation a sensor chip adhered to the core, wherein the sensor chip is wire-bonded to two or more of the plurality of conductive transmission lines.

Regarding claim 17, the prior art does not teach or suggest in combination with the other claimed limitation of the core comprises a rod having a first diameter and a shoulder wherein the rod comprises a second diameter larger than the first diameter.

Regarding claim 45, the prior art does not teach or suggest in combination with the other claimed limitation of a wedge-shaped insulating over-mold.

These limitations were found in claims 6, 7, 11-12, 14, 17 and 45, and are neither disclosed nor taught by the prior art of record, alone or in combination.



**Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoon et al (US 6,384,477), Koepke (US 5,015,207), Beitia et al (US 2002/0033046), Pinneo et al (US 5,223,672), Davis et al (US 3,975,579P), Pollack et al (US 4,982,055) and Bellora (US 6,433,276) disclose an electrical feedthru apparatus.

8. Any inquiry concerning this communication should be directed to Angel R. Estrada at telephone number (571) 272-1973. The Examiner can normally be reached on Monday-Friday (8:30 -5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 Ext: 31. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

  
**CHAU N. NGUYEN**  
**PRIMARY EXAMINER**

Angel R. Estrada

June 25, 2004